

8. Glossary of Terms and Acronyms

8.1 Glossary of Terms

A horizon. The top layer of the soil profile that contains most of the organic matter.

Acre foot (af). The amount of water necessary to cover an acre (43,560 sq. feet) to a depth of one foot, or 43,560 cubic feet, which is equivalent to 325,828 gallons.

Algal. Adjective form for algae.

Afterbay. The proposed reservoir to be located downstream from the Edmonston Pumping Plant, used to regulate flows in the East Branch of the California Aqueduct.

Air quality standard. The specified average concentration of an air pollutant in ambient air during a specified time period, at or above which level the public health may be at risk; equivalent to AAQS.

Alluvial. Deposited by running water.

Alluvium. Soil, sand, gravel, and other material that has been transported and deposited by flowing water. An alluvial feature is formed by material which has been deposited by water.

Ambient air. Any unconfined portion of the atmosphere; the outside air.

Ambient Air Quality Standards (AAQS). Standards and emission limits for individual sources and categories of sources of air pollutants.

Anthropogenic. Relating to the study of the origins and development of human beings.

Annual plants/vegetation. Plants/vegetation that completes its entire life cycle within the space of a year.

Aqueduct. An artificial channel for conveying water, especially for supplying large cities with water (e.g., California Aqueduct).

Arid. Dry, parched, having little rainfall.

Attainment area. An area having air quality as good as or better than the national ambient air quality standards as defined in the Clean Air Act. An area may be an attainment area for one pollutant and a non-attainment area for others.

Average. As a measure, the sum of the measurements (over a specified period) divided by the total number of measurements.

Average discharge. The arithmetic average of all complete water years of record whether or not they are consecutive. Average discharge is not published for less than 5 years of record. The term "average" is generally reserved for average of record and "mean" is used for averages of shorter periods, namely, daily mean discharge.

Backfill. Earth that is replaced after a construction excavation.

Bedrock. The solid rock that underlies all soil or other loose material; the rock material that breaks down to eventually form soil.

Berm. A narrow shelf, path, or ledge typically at the top or bottom of a slope; also, an earthen, mounded wall.

Baseline. A set of existing conditions against which change is to be described and measured.

Best management practices (BMPs). Those methods that have been determined to be the most effective, practical means of preventing or reducing pollution and have been agreed to by the California Department of Water Resources.

Biennial. Happening, or taking place, once every two years.

Bifurcation/bifurcate. The division of the California Aqueduct to form the East Branch and West Branch.

Biomass. All of the living material in a given area; often refers to vegetation.

Biota. Living organisms.

Botanical. Relating to plants and animal life.

Bypass. A channel detouring a fluid around a part and back to the main stream.

California Ambient Air Quality Standards (CAAQS). Legal limits on outdoor air pollution designed to protect the health and welfare of Californians.

California Aqueduct. Principal water-conveyance structure of the California State Water Project, that runs from the Sacramento River Delta east of San Francisco, south through the San Joaquin Valley, and over the summit of the Tehachapi Mountains (at this point it divides into east and west branches). It is 273 mi (440 km) long.

California Environmental Quality Act (CEQA). A California Statute that requires state and local agencies to identify the significant environmental impacts of their actions and to avoid or mitigate significant impacts to the extent feasible.

California State Water Project. Water storage and delivery system of reservoirs, aqueducts, power plants and pumping plants that stores and distributes water to 29 urban and agricultural water suppliers in Northern California, the San Francisco Bay Area, the San Joaquin Valley, the Central Coast, and Southern California.

Candidate species. Any species or subspecies of bird, mammal, fish, amphibian, reptile, or plant that is being considered for listing as endangered or threatened but is not yet the subject of a proposed rule.

Carbon monoxide (CO). A colorless, odorless, very toxic gas that burns to carbon dioxide with a blue flame and is formed as a product of the incomplete combustion of carbon.

Check/check point. A control structure used to regulate flow, divert flows, or otherwise control the hydraulics within the California Aqueduct.

Clean Air Act (CAA). A series of detailed controlled requirements designed to guide states in controlling sources of air pollution.

Clean Water Act (CWA). A federal water pollution control law containing a comprehensive program for protecting U.S. waters.

Cofferdam. A water diversion structure, which provides a barrier to prevent water flows during construction activities.

Construction staging area. The temporary location where construction equipment and materials are stored.

Contaminant. Any physical, chemical, biological, or radiological substance or matter that has an adverse effect on air, water, or soil.

Crest. The top of an embankment.

Cryptogam. Crusts formed by groups of small organisms, technically known as cryptogams, growing on or in the top layers of soil. Includes lichens, mosses, liverworts, blue-green algae, green algae and fungi.

Cubic feet per second (cfs). A unit expressing rates of discharge. One cubic foot per second is equal to the discharge through a rectangular cross section, 1 foot wide by 1 foot deep, flowing at an average velocity of 1 foot per second. It is also approximately 7.48 gallons per second.

Cubic yard (CY). A unit of volume.

Diameter at breast height (dbh). Height at which the diameter of a tree trunk is typically measured.

Discharge. Flow of surface water out of the afterbay. Can also apply to the flow of chemical emissions into the air through designated venting mechanisms.

Drainage. The manner by which the waters of an area flow off, by natural or artificial means in surface streams or subsurface conduits.

Dredging. Removal of mud from the bottom of the afterbay. Dredging activities may be subject to regulation under Section 404 of the Clean Water Act.

East Branch. The portion of the California Aqueduct beginning at the bifurcation and continuing downstream to Cottonwood Chute, Alamo Power Plant, Pearblossom Pumping Plant, Mojave Siphon Power Plant, Silverwood Lake, Devil Canyon Power Plant, and ending at Lake Perris.

Ecology. The relationship of living things to one another and their environment, or the study of such relationships.

Ecosystem. The interacting system of a biological community and its non-living environmental surroundings.

Edaphic. Relating to, or determined by, the conditions of the soils.

Embankment. The walls of the proposed reservoir, which would be made up of earthen material, placed with sloping sides and with length greater than height.

Emission. Unwanted substances released by human activity into air or water.

Endangered species. Animals, birds, fish, plants, or other living organisms threatened with extinction by anthropogenic (man-caused) or other natural changes in their environment. The Endangered Species Act provides requirements for declaring a species endangered.

Environmental Impact Report (EIR). A document required of state and local agencies by the California Environmental Quality Act for public or private projects that have the potential to significantly affect the physical environment.

Environmentally superior alternative. Alternative selected by the CEQA lead agency that provides an overall environmental advantage over the other alternatives.

Ephemeral. Short-lived; existing or continuing for a short time only.

Erosion. The wearing away of the land surface by running water, wind, ice, or other geological agents, including such processes as gravitational creep.

Fault. A fracture or zone of fractures in rock strata which have undergone movement that displaces the sides relative to each other, usually in a direction parallel to the fracture. Abrupt movement on faults is a cause of most earthquakes.

Fauna. All the animal life in a particular region.

Federal Endangered Species Act (ESA). Act designated to provide for the protection of threatened and endangered plant and animal species, and other critical habitat.

Fill. The man-made deposits of natural soils or rock products and waste materials. Fill material would be placed within the natural drainage channel.

Fine particulate matter (PM_{2.5}). Particulate matter less than or equal to 2.5 microns in size.

Flora. Plants or plant life.

Forb. A non-woody plant other than a grass, sedge, rush, etc.

Fugitive dust. Airborne pulverized soil particles.

Gate. A device that is moved across a waterway from an external position to control or stop flow.

Geology. The science dealing with the structure of the earth's crust and the formation and development of its various layers.

Geomorphic. Relating to or pertaining to the shape of the earth or its topographic features.

Habitat. The place where a population (e.g., human, animal, plant, microorganism) lives and its surroundings, both living and non-living.

Hazardous Air Pollutant (HAP). An air pollutant listed by the EPA in Section 112(b) of the Federal Clean Air Act, or determined by the Department of Environmental Quality (DEQ) to cause adverse effects to human health or the environment.

Hazardous Material. Any material that poses a threat to human health and/or the environment. Typical hazardous substances are toxic, corrosive, ignitable, explosive, or chemically reactive. Also, any substance designated by EPA to be reported if a designated quantity of the substance is spilled in the waters of the U.S. or is otherwise released into the environment.

Herbaceous. Of or pertaining to herbs; having the nature, texture, or characteristics, of an herb; as, herbaceous plants; an herbaceous stem.

Herbicide. A chemical pesticide designed to control or destroy plants, weeds, or grasses.

Herbs. Any seed plant whose stem withers away to the ground after each season's growth.

Hydroelectric. Relating to electric energy produced by moving water.

Hydrology. The science dealing with the properties, distribution, and circulation of water.

Impoundment. Body of water confined by a darn, dike, floodgate or other barriers.

Inflow. Amount of water flowing into the water balance domain from precipitation, surface and subsurface sources.

Inoculum. A bacteria or fungi injected into compost to start biological action.

Liquefaction. The process of making or becoming liquid (soils).

Loam. A loose soil composed of clay, sand, and organic matter, often highly fertile.

Microgram (µg). One millionth of a gram.

Migratory birds. All birds, whether or not raised in captivity, included in the terms of conventions between the United States and any foreign country for the protection of migratory birds.

Miles per hour (mph). The ratio of the distance traveled (in miles) to the time spent traveling (in hours).

Milligrams (mg). One thousand of a gram.

Monolithic. Forming a single mass without joints.

National Ambient Air Quality Standards (NAAQS). Standards established by EPA that apply to outdoor air throughout the country.

National Pollutant Discharge Elimination System (NPDES). A provision of the Clean Water Act which prohibits discharge of pollutants into waters of the United States, unless a special permit is issued by EPA, a state, or, where delegated, a tribal government on an Indian reservation.

Nitrogen dioxide (NO₂). A toxic, reddish-brown gas and strong oxidizing agent that is an atmospheric pollutant. It is usually produced by combustion of fossil fuels.

Navigable waters. Traditionally, waters sufficiently deep and wide for navigation by all, or specified vessels; such waters in the United States come under federal jurisdiction and are protected by certain provisions of the Clean Water Act.

Nonattainment area. Area that does not meet one or more of the National or California Ambient Air Quality Standards for the criteria pollutants designated in the Clean Air Act. The proposed project would be in a nonattainment area for the state and federal 1-hour ozone standards and the state 24-hour PM₁₀ standard.

Non-point sources. Diffuse pollution sources (i.e., without a single point of origin or not introduced into a receiving stream from a specific outlet). The pollutants are generally carried off the land by storm water. Common non-point sources are agriculture, forestry, urban, mining, construction, dams, channels, land disposal, saltwater intrusion, and city streets.

Off-peak period. A segment of time when energy supplies are available and system demands are low.

Ogee. The shape of the isolation weir, which is generally like an elongated letter S.

Organic. Referring to or derived from living organisms. In chemistry, any compound containing carbon.

Outlet. A stream flowing out of a reservoir, lake or pond.

Overchute. Bridge-like structure used to cross the existing natural drainage channel west of the proposed reservoir.

Oxides of nitrogen (NO_x). Chemical compounds of nitrogen produced as a byproduct of combustion. These compounds combine with hydrocarbons to produce smog.

Ozone (O₃). A molecule of three oxygen atoms. A principal component of "oxidant" in photochemically polluted atmospheres.

Penstock. A conduit or pipeline used to convey water under pressure to the turbines of a hydroelectric plant (e.g., Alamo Powerplant).

Perennial. A plant lasting for three seasons or more.

Parent material. The unconsolidated and more or less weathered mineral or organic matter from which a soil profile develops.

Particulate matter (particulates). Very fine sized solid matter or droplets, typically averaging one micron or smaller in diameter. Also called "aerosol."

Parts per million (ppm). Concentration measure in milligrams or micrograms of a pollutant per cubic meter of air (mg/m³ or µg/m³).

Pesticides. Any chemical for killing insects, weeds, etc.

Photocell. A light-sensitive cell whose resistance changes when exposed to light.

Photochemical activity. Reaction that absorbs energy from the sun and reacts chemically to form ozone (O₃).

Pipe/piping. A long tube generally made of metal or concrete that is used to carry water.

Point source. A stationary location or fixed facility from which pollutants are discharged; any single identifiable source of pollution; e.g., a pipe, ditch, ship, ore pit, factory smokestack.

Pool. A storage waterway between check points along the California Aqueduct.

Prevention of Significant Deteriorations (PSD). Rules imposed by the U.S.EPA seeking to create regulatory certainty over what activities fall under the "routine maintenance, repair and replacement" (RMRR) exclusion to the New Source Review (NSR) provision of the Clean Air Act.

Quarry. Open or surface excavation usually for the extraction of stone or slate.

Rabbitbrush. A shrub common in the plains of western North America, named because its dense growths are frequented by jack rabbits.

Reservoir. Any natural or artificial holding area (e.g., Tehachapi East Afterbay) used to store, regulate, or control water.

Reservoir invert. The bottom or lowest point of the proposed reservoir.

Respirable/inhalable particulate matter (PM₁₀). Particulate matter less than or equal to 10 microns in size.

Riparian. Area along the banks of a river or lake supporting specialized plant and animal species.

Ruderal. A plant that is associated with human dwellings or agriculture or one that colonises waste ground. Ruderals are often weeds with high demands for nutrients and /or are intolerant of competition.

Scrub. Short stunted trees, bushes or shrubs growing thickly together.

Seepage. The movement of water through small cracks, pores, interstices, out of a body of surface of subsurface water.

Sensitive receptor. A segment of a population that is more susceptible to the effects of air pollution, noise, etc, due to age or weak health.

Sensitive species. Plant or animal species susceptible to habitat changes or impacts from activities.

Seral. The stage of succession of a plant or animal community that is transitional; transitory stage of community development.

Shrub. A woody plant of less size than a tree, and usually with several stems from the same root.

Special status species. Any flora, fauna and vegetation communities that are listed as threatened, endangered or candidate species.

Species. A single distinct kind of plant or animal having certain distinguished characteristics.

Spoil Pile. Mound of extra soil from construction activities. The main spoil pile would be located south of the proposed reservoir. A potential supplemental spoil pile would be located west of the existing natural drainage channel.

State Implementation Plans (SIPs). Air quality plans developed to meet federal requirements.

Streambed Alteration Agreement (SAA). A permit required by the California Department of Fish and Game for “any activity that may substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake in California.”

Succession. The act of coming after another in order or sequence.

Sulfur dioxide (SO₂). A heavy pungent toxic gas that is used especially in making sulfuric acid, in bleaching, as a preservative, and as a refrigerant. It easily condensed to a colorless liquid, and is a major air pollutant, especially in industrial areas.

Taxa. A taxonomic unit. A taxonomic group of any rank, including all the subordinate groups.

Tehachapi Mountains. The mountain range located in southern California extending east-west between the Sierra Nevada and the Coast Ranges north of Los Angeles.

Terrace. A raised bank of earth having vertical and sloping sides.

Terrestrial. Related to or living on land. Terrestrial biology deals with upland areas as opposed to shorelines or coastal habitats.

Threatened species. Any species that is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.

Tons per year (tpy). Measure of the annual quantity of a pollutant.

Turbine. A machine for generating rotary mechanical power from the energy in a stream of fluid (such as water, steam, or hot gas). Turbines convert the kinetic energy of fluids to mechanical energy through the principles of impulse and reaction, or a mixture of the two.

Uncoupling. Detach, disconnect.

Unincorporated. Areas not located within the boundaries of an incorporated city.

Valley String. Includes Buena Vista, Teerink, Chrisman and Edmonston Pumping Plants. For the purposes of this EIR, Dos Amigos is excluded from the Valley String.

Volatile organic compounds (VOCs). A group of organic compounds characterized by their tendency to evaporate easily at room temperature.

Waterfowl. Birds that are ecologically dependent on wetlands for their food, shelter and reproduction

Waters of the State. All significant surface water bodies and groundwater.

Waters of the United States. All surface waters, rivers, lakes, estuaries, coastal waters, and wetlands, including all navigable waters.

West Branch. The portion of the California Aqueduct beginning at the bifurcation and continuing downstream to Oso Pumping Plant, Quail Lake, William E. Warne Power Plant, Pyramid Lake, Castaic Lake Power Plant, and Castaic Lake.

Weed. Any undesired, uncultivated plant that grows in profusion so as to crowd out a desired plant of crop.

Weir. A structure built across a stream or channel for the purpose of measuring flow (measuring or gauging weir).

Wetland. Lands transitional between obviously upland and aquatic environments. Wetlands are generally highly productive environments with abundant fish, wildlife, aesthetic, and natural resource values. For this reason, coupled with the alarming rate of their destruction, they are considered valuable resources, and several regulations and laws have been implemented to protect them.

Wildlife. Animals living in the wilderness without human intervention.

Woody plants. Consisting of, or containing, wood or woody fiber; ligneous; as, the woody parts of plants.

Xeric. Requiring a small amount of moisture.

Zoning. A legal mechanism for local governments to prevent conflict land use and promote orderly development by regulating the use of privately owned land through enforcement.

8.2 Acronyms

AAQS

Ambient Air Quality Standards

APCD

Air Pollution Control District

AQMD

Air Quality Management District

AVEK

Antelope Valley-East Kern Water Agency

AVAQMD

Antelope Valley Air Quality Management District.

BMPs

Best Management Practices

CAA

Clean Air Act (federal)

CAAQS

California Ambient Air Quality Standards

CARB

California Air Resources Board

CCAA

California Clean Air Act

CDFG

California Department of Fish and Game

CDWR

California Department of Water Resources

CESA

California Endangered Species Act

CEQA

California Environmental Quality Act

CFR

Code of Federal Regulations

cfs

Cubic feet per second

CNDDDB

California Natural Diversity Database

CNPS

California Native Plant Society

CO

Carbon monoxide

CWA

Clean Water Act (federal)

cy

cubic yard

DSOD

Division of Safety of Dams

EIR

Environmental Impact Report

FERC

Federal Energy Regulatory Commission

FOC

Fiber optic cable

HCP

Habitat conservation plan

KCAPCD

Kern County Air Pollution Control District

LADWP

Los Angeles Department of Water and Power

LPG

Liquid Petroleum Gas

MBTA

Migratory Bird Treaty Act

mph

Miles per hour

MOA

Memorandum of agreement

MOU

Memorandum of understanding

MWD

Metropolitan Water District of Southern California

NAAQS

National Ambient Air Quality Standards

NCCP

Natural Community Conservation Plan

NO_x / NO₂

Oxides of nitrogen / Nitrogen dioxide

NPDES

National Pollution Discharge Elimination System

O₃

Ozone

OHWM

Ordinary high water mark

PM₁₀ / PM_{2.5}

Fine particulate matter

RWQCB

Regional Water Quality Control Board

SO_x / SO₂

Oxides of sulfur / Sulfur dioxide

SPCC

Spill prevention, control, and countermeasure

SWP

State Water Project

SWPPP

Storm-Water Pollution Prevention Plan

USEPA

United States Environmental Protection Agency

USFWS

United States Fish and Wildlife Service

VOC

Volatile organic compound

WDR

Waste discharge requirement